IN THE CLAIMS:

Cancel claims 10-12, 15, 18, 19, 22, 24-26 and 30 and amend claims 13, 14, 16, 17, 20 and 27-29 as shown in the following listing of claims, which replaces all previous listings and versions of claims.

1. (previously presented) An electromagnetic field superimposed lens having an electrical field bi-potential lens accommodated within a magnetic field lens, wherein:

a magnetic pole of the magnetic field lens is divided into a first magnetic pole section to which an earth potential is applied during use, and a second magnetic pole section facing a sample, a negative potential being applied to the second magnetic pole and to the sample during use, and the first and second magnetic pole sections being electrically insulated from each other; and

the electric field bi-potential lens comprises an electrode connected to the first magnetic pole section so as to surround an electron beam path of the superimposed lens, and the second magnetic pole section.

2. (previously presented) An electromagnetic field superimposed lens according to claim 1; further comprising an electrically insulating member disposed between confronting ends of the first and second electromagnetic pole sections

such that the first and second electromagnetic pole sections and the electrically insulating member form an integral body.

3. (previously presented) An electromagnetic field superimposed lens according to claim 2; further comprising an excitation coil attached to an overhang portion of the first electromagnetic pole section extending radially from the electron beam path; wherein the second magnetic pole section extends from the electrically insulating member towards the sample and becomes narrower in cross-sectional diameter as it approaches the sample, and a magnetic gap is formed between ends of the first and second magnetic pole sections closest to the sample.

4. (previously presented) An electromagnetic field superimposed lens according to claim 3; wherein a magnetic pole of the superimposed lens is formed on a sample side of the second magnetic pole section.

5. (previously presented) An electromagnetic field superimposed lens having an electrical field bi-potential lens accommodated within a magnetic field lens: wherein

a magnetic pole of the magnetic field lens is divided into a first magnetic pole section to which an earth potential is applied during use, and a second magnetic pole section facing a sample, a negative potential being applied to

the second magnetic pole section and to the sample during use, and the first and second magnetic pole sections being electrically insulated from each other; and

the electrical field bi-potential lens comprises a high resistance body provided between the first magnetic pole section and the second magnetic pole section so as to surround an electron beam path of the superimposed lens, such that a potential difference exists between the first magnetic pole section and the second magnetic pole section.

6. (previously presented) An electromagnetic field superimposed lens according to claim 5; further comprising an electrically insulating member disposed between confronting ends of the first and second electromagnetic pole sections such that the first and second electromagnetic pole sections and the electrically insulating member form an integral body.

7. (previously presented) An electromagnetic field superimposed lens according to claim 6; further comprising an excitation coil attached to an overhang portion of the first electromagnetic pole section extending radially from the electron beam path; wherein the second magnetic pole section extends from the electrically insulating member towards the sample and becomes narrower in cross-sectional diameter as it approaches the sample, and a magnetic gap is formed between

ends of the first and second magnetic pole sections closest to the sample.

8. (previously presented) An electron beam device having the electromagnetic field superimposed lens according to claim 1.

9. (previously presented) An electron beam device having the electromagnetic field superimposed lens according to claim 5.

10.- 12. (canceled).

13. (currently amended) ~~A composite lens according to claim 10; wherein~~ A composite electromagnetic field lens, comprising: a magnetic field lens for producing a magnetic focusing field for focusing an electron beam along an optical axis, the magnetic field lens comprising a first magnetic pole section surrounding the optical axis and having an overhang portion extending radially outward from the optical axis, an excitation coil disposed in the overhang portion, and a second magnetic pole section extending from a location near the overhang portion toward a sample to be irradiated with the focused electron beam; and an electric field lens accommodated within the magnetic field lens for superimposing a decelerating electric field onto the magnetic focusing field

to reduce an aberration factor of the lens, the electric field lens ~~comprises~~ comprising a high resistance body surrounding the optical axis and electrically connecting the first and second magnetic pole sections.

14. (currently amended) A composite lens according to claim ~~10~~ 13; further comprising a voltage source for applying a negative potential to the second magnetic pole section and the sample and applying a ground potential to the first magnetic pole section.

15. (canceled).

16. (currently amended) A composite lens according to claim ~~10~~ 13; wherein a magnetic gap is formed between the tip of the second pole section and an end of the first pole section opposite the overhang section so that the focusing magnetic field is generated in the magnetic gap upon application of an electric current to the excitation coil.

17. (currently amended) A composite lens according to claim ~~10~~ 13; wherein the second pole section has a conical shape with a tip facing the sample.

18. - 19. (canceled).

20. (currently amended) ~~A composite lens according to claim 19; wherein~~ A composite electromagnetic field lens, comprising: a magnetic field lens for producing a magnetic focusing field for focusing an electron beam along an optical axis, the magnetic field lens comprising a first magnetic pole section surrounding the optical axis and having an overhang portion extending radially outward from the optical axis, an excitation coil disposed in the overhang portion, and a second magnetic pole section extending from a location near the overhang portion toward a sample to be irradiated with the focused electron beam; and an electric field lens accommodated within the magnetic field lens for superimposing a decelerating electric field onto the magnetic focusing field to reduce an aberration factor of the lens, the electric field lens having an electrode formed of a non-magnetic conductive material, the electrode ~~has~~ having an outer diameter corresponding to an inner diameter of the first pole section so that a first end of the electrode is received in the first pole section and is electrically connected thereto.

21. (previously presented) A composite lens according to claim 20; wherein a second end of the electrode faces the tip of the second magnetic pole section with a predetermined distance therebetween.

22. (canceled).

23. (currently amended) ~~A magnetic~~ A composite electromagnetic field lens, comprising: a magnetic field lens for producing a magnetic focusing field for focusing an electron beam along an optical axis, ~~comprising:~~ the magnetic field lens comprising a first magnetic pole section surrounding the optical axis and having an overhang portion extending radially outward from the optical axis~~;~~, an excitation coil disposed in the overhang portion~~;~~, a second magnetic pole section extending from the overhang portion toward a sample to be irradiated with the focused ~~ion~~ electron beam~~;~~, and a voltage source for applying a negative potential to the second magnetic pole section and the sample and applying a ground potential to the first magnetic pole section during use of the magnetic field lens; and an electric field lens accommodated within the magnetic field lens for superimposing a decelerating electric field onto the magnetic focusing field to reduce an aberration factor of the lens, the electric field lens comprising a high resistance body surrounding the optical axis and electrically connecting the first and second magnetic pole sections.

24. - 26. (canceled).

27. (currently amended) A ~~magnetic~~ composite electromagnetic field lens according to claim 23; further comprising an electrically insulating member disposed between the overhang section and the second magnetic pole section.

28. (currently amended) A ~~magnetic~~ composite electromagnetic field lens according to claim 23; wherein a magnetic gap is formed between the tip of the second pole section and an end of the first pole section opposite the overhang section so that the focusing magnetic field is generated in the magnetic gap upon application of an electric current to the excitation coil.

29. (currently amended) A ~~magnetic~~ composite electromagnetic field lens according to claim 23; wherein the second pole section has a conical shape with a tip facing the sample.

30. (canceled).